REMARKS

Claims 1-9 and 13-26 are pending in the present application. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 103, Alleged Obviousness

The Office Action rejects claims 1-9 and 13-26 under 35 U.S.C. § 103(a) as being unpatentable over Gunlock (U.S. Patent No. 6,922,414 B1). This rejection is respectfully traversed.

As to claim 1, the Office Action states:

> As per claims, 1-9 and 13-26, Gunlock obviously teaches a system for enhancing data throughput on a bus in a SCSI topology, comprising: an initiating unit (100, 130, Fig. 1, Node list, 416, Fig.4) , said initiating unit operable to initiate transactions on the bus; at least one target unit (nodes, 128, 126, Fig. 1, target node list, 417, Fig. 4), said at least one target unit operable to execute commands received from said initiating unit; and a nexus pipeline unit (Path/Route queue information, Figs. 4, 7-9a), said nexus pipeline unit coupled to at least one unit of said initiating unit and said at least one target unit, said nexus pipeline unit operable to: receive a plurality of nexuses, each nexus of said plurality of nexuses related to a transaction initiated on the bus; and form an association for said plurality of nexuses received. (Gunlock, Abstract, cols. 2-14)

Office Action dated September 19, 2005, page 2.

Claim 1, which is representative of the other rejected independent claims 13 and 22 with regard to similarly recited subject matter, reads as follows:

> 1. A system for enhancing data throughput on a bus in a SCSI topology, comprising:
>
> an initiating unit, said initiating unit operable to initiate transactions on the bus;
>
> at least one target unit, said at least one target unit operable to execute commands received from said initiating unit; and
>
> a nexus pipeline unit, said nexus pipeline unit coupled to at least one unit of said initiating unit and said at least one target unit, said nexus pipeline unit operable to:

receive a plurality of nexuses, each nexus of said plurality of nexuses related to a transaction initiated on the bus; and
form an association for said plurality of nexuses received.

Gunlock fails to teach or suggest a nexus pipeline unit, said nexus pipeline unit coupled to at least one unit of said initiating unit and said at least one target unit, said nexus pipeline unit operable to: receive a plurality of nexuses, each nexus of said plurality of nexuses related to a transaction initiated on the bus, and form an association for said plurality of nexuses received.

Gunlock is directed to dynamic command queue depth adjustment for storage area network nodes. An initiator node for a storage area network used with storage nodes having command queue capability maintains a current queue depth, and a maximum queue depth associated with each storage node. The initiator initializes the maximum queue dependent on the type of the storage nodes it detects, and limits the number of commands queued to each storage node to the current queue depth associated with the storage node. The initiator dynamically adjusts the current queue depth for each storage node based upon queue refusals generated by the storage nodes and the maximum queue depth associated with the storage nodes.

Thus, Gunlock is directed to queue depth adjustment for storage area network nodes and does not enhancing data throughput on a bus in a SCSI topology. The Office Action claims that Gunlock teaches a nexus pipeline unit that is coupled to at least one initiating unit and at least one target unit, in Figures 4, 7, 8, 9 and 9a. In Figure 4, Gunlock describes a data structure for a local network information database. In Figure 7, Gunlock describes a device record of a topology database. In Figure 8, Gunlock describes a path link of a topology network. In Figure 9, Gunlock describes a node link of a topology network. Finally, in Figure 9a, Gunlock describes a host bus adapter-port record of the topology database. None of these sections teaches or suggests a nexus pipeline unit.

The Office Action equates an initiation unit to Gunlock's first node 100 or second node 130 and a target unit to Gunlock's target storage node 126 or 128. Gunlock teaches connecting the first and second node to the target storage node via a fibre channel fabric 108. Fibre channel fabric 108 is composed of one or more switches 110 and 112, and a

plurality of links 114, 116, 118, 120, 122, and 124. Gunlock describes a fibre channel fabric as a fibre channel network having at least one switch. A fibre channel switch is a routing device generally capable of receiving frames, storing them, decoding destination information from headers, and forwarding them to their destination or another switch further along a path toward their destination. Fibre channel fabric 108 is not a nexus pipeline unit coupled to at least one initiating unit and at least one target unit that receives a plurality of nexuses, where each nexus is related to a transaction initiated on the bus, and forms an association for said plurality of nexuses received. Additionally, other than Gunlock merely mentioning that an operating system passes block I/O requests to the device driver with a device tag identifying the specific device intended to perform the desired operation and that this tag may comprise a referenced device name, handle, or SCSI nexus, where a SCSI nexus includes bus identity, target device number, and logical unit number, nowhere in the Gunlock reference is a nexus pipeline unit described that **receives a plurality of nexuses, where each nexus is related to a transaction initiated on the bus**, and **forms an association for said plurality of nexuses received.**

Furthermore, there is not so much as a suggestion in Gunlock to modify the reference to include such features. That is, there is no teaching or suggestion in Gunlock that a problem exists for which a nexus pipeline unit coupled to at least one initiating unit and at least one target unit, that operates to receive a plurality of nexuses, where each nexus is related to a transaction initiated on the bus and form an association for said plurality of nexuses received, is a solution. To the contrary, Gunlock only teaches a fibre channel fabric that contains at least one switch that acts as a routing device generally capable of receiving frames, storing them, decoding destination information from headers, and forwarding them to their destination or another switch further along a path toward their destination. There is no need in the Gunlock reference to provide a nexus pipeline unit coupled to at least one initiating unit and at least one target unit, that operates to receive a plurality of nexuses, where each nexus is related to a transaction initiated on the bus and forms an association for said plurality of nexuses received, as recited in claim 1.

One of ordinary skill in the art, being presented only with Gunlock, and without having a prior knowledge of Applicants' claimed invention, would not have found it

obvious to modify Gunlock to arrive at Applicants' claimed invention. To the contrary, even if one of ordinary skill in the art were somehow motivated to modify Gunlock the result would not be the invention, recited in claim 1. The result would be a fibre channel fabric implemented to dynamically control queue depth adjustment for storage area network queues.

Thus, Gunlock fails to teach or suggest all of the features in independent claims 1, 13, and 22. At least by virtue of their dependency on claims 1, 13, and 22, the specific features of claims 2-9, 14-21, and 23-26 are not taught or suggested by Gunlock. Accordingly, Applicants respectively request withdrawal of the rejection of claims 1-9 and 13-26 under 35 U.S.C. § 103(a).

Moreover, in addition to their dependency from independent claims 1, 13, and 22, the specific features recited in dependent claims 2-9, 14-21, and 23-26 are not taught by Gunlock. The Office Action fails to address the specific features of claims 2-9, 14-21, and 23-26, and merely alleges, without any supported evidence, that these claims are rejected on the same basis as claims 1, 11, and 23, even though they contain additional features. For example, claims 6 and 18 contain the feature of an association for the plurality of nexuses comprises a plurality of nexus attributes associated as a related grouping of attributes. As another example, claims 7 and 19 contain the feature of the nexus pipeline unit comprising a plurality of load stages, wherein at least one load stage of the plurality of load stages is operable to load at least a first nexus attribute or shift at least one nexus attribute to a second load stage of the plurality of load stages. As a further example, claims 8 and 20 contain the feature of the nexus pipeline unit comprising a plurality of latching units and a plurality of multiplexing units. Still further, claims 9 and 21 contain the feature of the nexus pipeline unit comprising a plurality of load stages, wherein at least one load stage of the plurality of load stages includes at least one flip-flop device and at least one multiplexer device coupled together. Nowhere in the Office Action does the Examiner provide a specific section of the Gunlock reference that teaches these features. The Office Action simply fails to establish a *prima facie* case of obviousness for claims 2-9, 14-21, and 23-26.

Thus, in addition to being dependent on independent claims 1, 13, and 22, the specific features of dependent claims 2-9, 14-21, and 23-26 are also distinguishable over

Gunlock by virtue of the specific features recited in these claims. Accordingly, Applicant respectfully requests withdrawal of the rejection of dependent claims 2-9, 14-21, and 23-26 under 35 U.S.C. § 103 (a).

II. Conclusion

It is respectfully urged that the subject application is patentable over the prior art of record and is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

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